



Marine Products

2022



A Global Wireless Communications Company

Icom Inc.—first launched as an amateur radio manufacturing company—has become a comprehensive wireless communications company that provides the world market with various radios for land, marine and air. Besides high quality RF radios, we have been expanding our business with wireless LAN devices and IP radio systems that cover wider areas using the LTE network. Most recently, we have developed a new satellite PTT communications product, which enables secure wide area communications even in disasters.

LAND MOBILE



MARINE



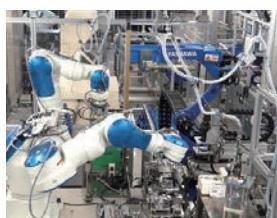
AVIONICS



AMATEUR

Made in Japan and Reliability

Icom is a rare example of a Japanese electronics manufacturer that has been keeping its production base in Japan. Since 2018, we have been working on fully automating the production lines of our factories, and are actively investing in making them the latest smart factories, incorporating state-of-the-art technologies and robotic systems.



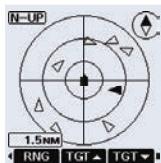
Leading the Marine Radio Industry

Icom has been the world benchmark in the marine radio industry by continuously introducing “world firsts” – the first submersible radios, the first Li-ion powered radios and the first floating radios. The IC-M605 has received the NMEA Best VHF Radio Product Award for 2017, 2018, 2019 and 2020.





Floating VHF Handheld Transceivers



AIS screen



DISTRESS button



View AIS Traffic Info On-Screen

VHF MARINE TRANSCEIVER WITH DSC & AIS

IC-M94D

FEATURES

- Built-in AIS and DSC combination adds further assurance for safety at sea
- 6 W RF output power**
- 1500 mW powerful audio output
- Simplified navigation function and MOB
- 10 hours* (approx.) of long operating time
- Float'n Flash function**

* TX: RX: Standby = 5 : 5 : 90

- Integrated GNSS • Active noise canceling technology
- IPX7 submersible protection • 50 waypoint memories
- Dualwatch and Tri-watch functions
- Favorite channel function • AquaQuake™ prevents audio degradation from a water-logged speaker
- Supports 4-digit channels

Included Accessories

- BP-306 battery pack • BC-251 battery charger
- AC adapter • MB-133 belt clip • CP-26 cigarette lighter cable
- FA-SC59V antenna • Hand strap



6 Watt VHF with Float'n Flash and 12 Hours of Operation

VHF MARINE TRANSCEIVER IC-M37

FEATURES

- Large keys and easy-to-grip design
- 6 W RF output power**
- 700 mW audio output
- More than 12 hours* of long-lasting operating time with the BP-296
- Channel History function stores the last five channels
- Float'n Flash function**

* TX: RX: Standby = 5 : 5 : 90.

- IP57 dust-protection and submersible protection
- Low Battery Alert function • Voice Loud and Mute functions • Dualwatch and Tri-watch functions • Instant access to Ch 16 and Call channel • Weather Alert function (USA Version only) • AquaQuake™
- Favorite Channel function • Optional HM-213 speaker-microphone • Supports 4-digit channels

Included Accessories

- BP-296 battery pack • BC-235 desktop charger
- BC-217SA/SE* AC adapter • MB-133 belt clip
- FA-SC59V antenna • Hand strap

* Depending on the transceiver version.



Three Color Choices, Smart, Fast USB Charging

VHF MARINE TRANSCEIVER IC-M25

FEATURES

- Slim body, lightweight and high performance**
- Large LCD and intuitive user interface
- Micro-B USB charging
- Floats with blinking red light
- 11 hours of long operating time**
- 5 W RF output, 550 mW clear audio**

- IPX7 submersible protection • Dualwatch and Tri-watch functions • Instant access to Ch 16 and Call channel • Weather Alert function (USA Version only)
- AquaQuake™ • 2-step power save • Auto Scan function • Tag Scan and Favorite Channel Functions • 3 hour rapid charging (with the BC-217SA/SE*) • Optional HM-213 speaker-microphone • Supports 4-digit channels

Included Accessories

- BC-217SA/SE* USB charger • MB-133 belt clip
- FA-SC59V antenna • Hand strap • Battery cell is built-in

* Depending on the transceiver version.



Commercial VHF Handheld Transceivers



Photo shows FA-S59V antenna version.

1.5 m Submersible, 6 Watt VHF with Professional Features

VHF MARINE TRANSCEIVERS

IC-M73 PLUS
IC-M73

FEATURES

- ⊕ **Last call voice recording***
- ⊕ **Active noise canceling***
- ⊕ **Bass Boost function***
- **IPX8 Submersible Plus™ (1.5 m/ 30 min.)**
- **6 W RF output, 700 mW loud audio**
- **17 hours of long lasting operating time with the BP-245H**

*⊕ Available in IC-M73 PLUS version only.

• Dualwatch and Tri-watch functions • Instant access to Ch 16 and Call channel • Weather Alert function (USA Version only) • AquaQuake™ • Auto power save • Auto Scan function • Priority and normal scan • Tag Scan and Favorite Channel functions • Optional HM-167/HM-202 speaker-microphones • Supports 4-digit channels

Included Accessories

- BP-245H battery pack • BC-210 rapid charger
- BC-123SA/SE* AC adapter • MB-103 belt clip
- FA-S59V or FA-S64V* antenna • CP-25H cigarette lighter cable
- Hand strap * Depending on the transceiver version.



A Marine and Land Mobile Radio Combined in One

VHF MARINE TRANSCEIVER

IC-M85

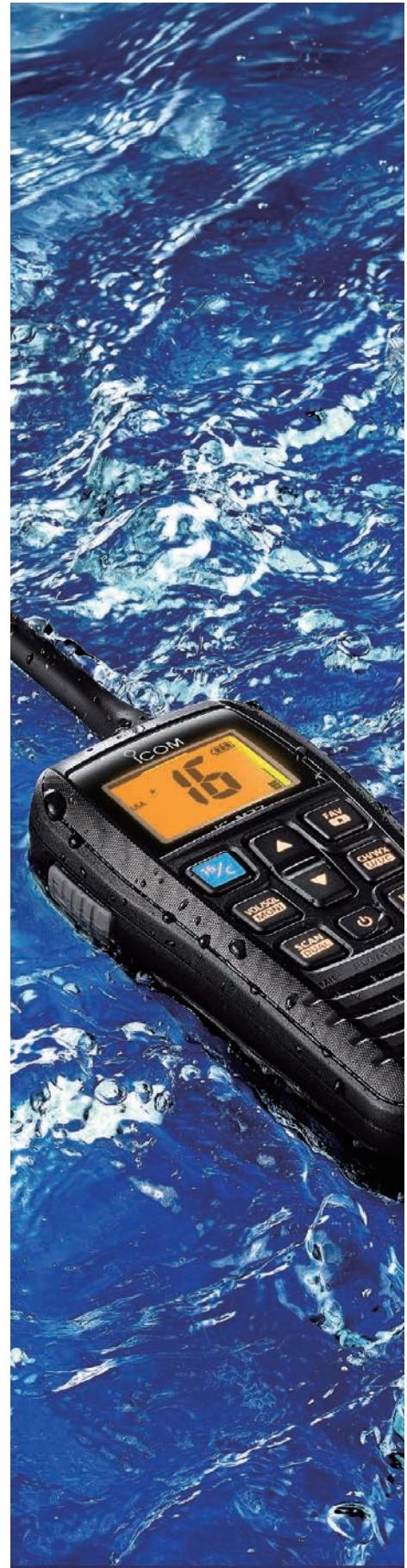
FEATURES

- Compact, lightweight and tough
- Marine and land channel groups
- 100 programmable land channels
- Built-in Voice Scrambler
- Automated Emergency Alarm with Man Down, Lone Worker and MOB Alarm functions
- 700 mW loud audio
- Built-in CTCSS and DTCS tones

• IP67 dust-tight and submersible protection • Dual-watch and Tri-watch functions • Instant access to Ch 16 and Call channel • Weather Alert function • AquaQuake™ • Auto power save • Tag Scan and Favorite Channel functions • 14 hours of long battery life (TX: RX: Standby=5:5:90.) • MIL-STD rugged construction • Internal VOX capability for hands-free operation • Variety of audio accessories • Supports 4-digit channels

Included Accessories

- BP-290 battery pack • BC-227 rapid charger • BC-123SA/SE* AC adapter
- MBB-3 belt clip • FA-SC58V antenna • Hand strap
- * Depending on the transceiver version.



Intrinsically Safe Radio



Intrinsically Safe Radio with 5 Watt Power Output

VHF MARINE TRANSCEIVER
IC-M85UL



FEATURES

- 5 W* output power for hazardous locations
 - * Land mobile channels for the USA version: 2 W
- **Intrinsically safe:** Class I, Division 1, Groups C D; Class II, Division 1, Groups E F G; Class III. T3C.
- Non-incendive: Class I, Division 2, Groups A B C D.
- Ambient temperature: -20°C (-4°F) ~ +60°C (+140°F)
- Standards of safety: ANSI/TIA-4950-A ANSI/UL 121201
- Marine and land channel groups (land mobile channels for USA: 2 W)
- 700 mW powerful audio
- **Man over board, man down, and lone worker alarms**

- IP67 dust-tight and submersible protection • Built-in CTCSS and DTCS tones
- Dualwatch and Tri-watch functions • Instant access to Ch 16 and Call channel • Auto power save
- Auto Scan function • Tag Scan function • Optional HM-184UL speaker-microphone • Supports 4-digit channels

DO NOT use the transceiver with any other equipment not specified in the option list (Pages 17-18). Please ask your dealer to ensure the rating is acceptable for the intended place of use.

Included Accessories

- BP-292UL battery pack • BC-227 rapid charger • BC-123SA/SE* AC adapter • MBB-3 belt clip • FA-SC58V antenna
- Hand strap * Depending on the transceiver version.

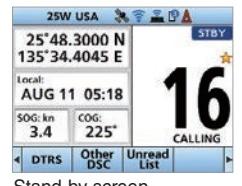




VHF Fixed Mount Transceivers

Class-D DSC VHF Marine Transceiver with Wireless LAN Function

VHF MARINE TRANSCEIVER
IC-M510



FEATURES

- Up to 3 smartphones*¹ can be connected as wireless microphones or remote controllers in substitute for the COMMANDMIC™
- CT-M500 optional wireless interface box for NMEA 2000™ connectivity and Two-way Hailer/PA functions
- Wide viewing angle color TFT LCD
- AIS** Integrated AIS receiver*² (AIS RX data can be output through NMEA 0183-HS)
- Sleek, slim design, least depth ever for least mounting effort (rear panel depth reduced nearly 50% vs IC-M506)
- Simplified Navigation function to a specified waypoint or AIS target

*1 An optional free download software, RS-M500 (for Android™/iOS™) is required to be installed.

*2 **AIS** AIS receiver is not included depending on the transceiver version.



Slim depth

- Active Noise Canceling
- Voice scrambler with optional UT-112A
- Integrated GNSS receiver (Selectable from either internal receiver or use UX-241 GNSS antenna.)
- NMEA 0183-HS (High Speed) Version 1.01 connectivity (38.4 kbps)
- IP68 dust-tight and waterproofing (1 m depth water for 60 minutes)
- Automatic Foghorn functions (CT-M500 required)
- Dualwatch and Tri-watch functions
- Instant access to Ch 16 and Call channel
- Tag scan and favorite channel functions
- AquaQuake™ prevents audio degradation from a waterlogged speaker
- Priority scan function
- Display and keypad backlighting
- External speaker connection
- Controlled with COMMANDMIC™ HM-195GB/GW
- Supports 4-digit channels

SYSTEM OVERVIEW

Wireless Connectivity through Integrated Wireless LAN

VHF MARINE TRANSCEIVER

IC-M510



NMEA0183



External Speaker



Rear Microphone



COMMANDMIC™



GNSS antenna

For Remote Control Operation

REMOTE CONTROL SOFTWARE

RS-M500

- Mic/Speaker
- Scan ON/OFF
- CH/SQL changing
- PTT operation
- Intercom function



* RS-M500 is under development, therefore this screenshot may differ from the final design.

Wireless LAN

Wireless LAN

For NMEA 2000™ and Hailer/PA Functions

WIRELESS INTERFACE BOX

CT-M500



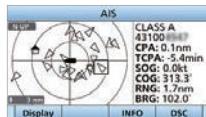
Horn Speaker



VHF Fixed Mount Transceivers

Premium Grade Modern Fixed Mount Radio Class D DSC, AIS Receiver and Remote Control

VHF MARINE TRANSCEIVER **IC-M605**



AIS plotter

TARGET LIST (93)		
MMSI/Name	RNG	BRG
DAIMARU NO.3	3.3	154
GYOKO MARU	3.4	147
MIRAE	3.4	249
TOKUYO MARU NO21	3.9	259
Display	INFO	DSC

AIS target list



Night mode screen



FEATURES

- Wide viewing angle, high contrast 4.3-inch color TFT LCD
- Remote control with up to three COMMAND HEAD™/COMMANDMIC™
- AIS** Integrated AIS receiver* • Built-in Class D DSC
- NMEA 2000™ connectivity • Intuitive user interface
- Class leading receiver performance (Selectivity and IMD: more than 80 dB)
- Active noise canceling • Last call voice recording for two minutes
- 30 W two-way hailer • Optional SP-37 horn speaker
- Integrated GNSS receiver (GPS, GLONASS and SBAS), 5 m cable and antenna supplied

- NMEA 0183-HS (High Speed) Version 1.01 connectivity (38.4 kbps)
- IPX8 submersible plus™ (1m depth water for 60 minutes)
- DSC Multi-task function • RX Hailer and Automatic Foghorn functions
- Dualwatch and Tri-watch functions
- Instant access to Ch 16 and Call channel • Tag Scan and Favorite Channel functions
- AquaQuake™ prevents audio degradation from a water-logged speaker • Priority Scan function
- Display and keypad backlighting
- External speaker connection • Optional UT-112/A voice scrambler
- Supports 4-digit channels

* **AIS** AIS receiver unit is an option, depending on the transceiver version

Easy-to-Use and Even Easier to Hear

VHF MARINE TRANSCEIVER **IC-M424G** (With GPS Receiver)

COMMANDMIC™,
HM-195 series capable

Photo shows IC-M424G black version.

Photo shows IC-M424G white version.
(Available depending on countries)

FEATURES

- Intuitive user interface
- Active noise canceling
- 10 W loud audio, public address and foghorn
- Optional COMMANDMIC™, HM-195 series
- IPX7 submersible
- Black and Super White color versions
- Integrated GPS receiver simplifies wiring
- Built-in Class D DSC

- Dualwatch and Tri-watch functions
- Instant access to Ch 16 and Call channel
- Weather Alert function (USA Version only)
- Tag Scan and Favorite Channel functions
- AquaQuake™
- Display and keypad backlighting
- External speaker connection
- RX speaker function
- Supports 4-digit channels



VHF Fixed Mount Transceivers

Black Box Transceiver When Space is at a Premium

VHF MARINE TRANSCEIVER

IC-M400BB



IC-M400BB and
HM-195B

FEATURES

- Space-saving, fully functional VHF/DSC
- Controlled by COMMANDMIC™ HM-195 series*
- Intuitive user interface
- Active noise canceling
- 10 W loud audio, public address and foghorn
- IPX7 submersible (Both IC-M400BB and HM-195 series)
- Built-in Class D DSC

* HM-195 series may be sold separately, depending on the transceiver version.

- Dualwatch and Tri-watch functions
- Instant access to Ch 16 and Call channel
- Weather Alert function (USA Version only)
- Tag Scan and Favorite Channel functions
- AquaQuake™
- Display and keypad backlighting
- External speaker connection
- RX Speaker function
- Supports 4-digit channels

Top Performance Ultra Compact VHF

VHF MARINE TRANSCEIVER

IC-M330G

(With GPS Receiver)

VHF MARINE TRANSCEIVER

IC-M330

(Without GPS Receiver)



Photo shows IC-M330G black version.



Photo shows IC-M330G white version. (Available depending on countries)

FEATURES

- Dynamic, clear audio from bass to treble
- Built-in Class D DSC
- Uncompromised receiver performance (Selectivity and IMD: more than 70 dB)
- Intuitive user interface
- Built-in GPS receiver with a supplied GPS antenna (IC-M330G)



Supplied GPS antenna (IC-M330G).

- Easy-to-read full dot-matrix display
- IPX7 submersible (1 m depth for 30 minutes)
- Ultra compact body (35 % smaller than the IC-M424G)

• Dualwatch and Tri-watch functions

- Instant access to Ch 16 and Call channel
- Weather Alert function (USA Version only)
- Tag Scan and Favorite Channel functions
- AquaQuake™
- Priority Scan function
- Display and keypad backlighting
- External speaker connection
- Black or white color version
- Supports 4-digit channels

High Quality, Excellent Performance

VHF MARINE TRANSCEIVER

IC-M220

(Non-FCC model)

Export Only



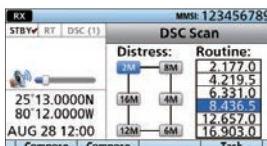
FEATURES

- Compact body for easy installation in limited space
- Powerful front mount speaker
- Built-in Class D DSC
- HM-237B detachable hand microphone supplied
- IPX7 submersible construction
- AquaQuake™
- Common NMEA interface for external GPS/NAV connection
- Tag Scan and Favorite Channel functions
- Dualwatch and Tri-watch functions
- Priority Scan function
- Display and keypad backlighting
- External speaker connection

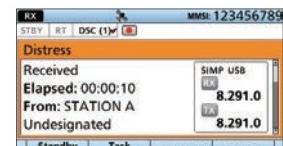


Long Range Communications Beyond the Horizon

MF/HF MARINE TRANSCEIVER
IC-M803



DSC scan screen



Example of received Distress screen



Night mode screen



FEATURES

- Built-in Class E DSC
- Distress button for an emergency
- Wide viewing angle, high contrast 4.3-inch color TFT LCD
- Intuitive user interface
- Integrated GNSS receiver (GPS, GLONASS and SBAS), 5 m cable and antenna supplied
- 150 W (PEP) of powerful RF output
- Optional AT-140 automatic antenna tuner
- IPX7 submersible remote controller head
- 0.5–29.999 MHz continuous receiver coverage
- NMEA 0183 Version 4.10 data input/output (4800–38400 bps)
- DSC Multi-task function
- Channel scan, Channel Resume scan and Program scan
- Display and keypad backlighting
- External speaker connection

- Instant Replay function automatically saves the received audio

- Advanced RF direct sampling system

- Ready for HF E-mail operation*

* Please consult with an HF e-mail provider for details.

- Matching design with the IC-M605 VHF marine transceiver

Reliable MF/HF Radio Covering All ITU HF Marine Channels

MF/HF MARINE TRANSCEIVER
IC-M710
(Non-FCC model)

Export Only



FEATURES

- Alphanumeric readout for programming channel names and quick access to channels
- 150 W* full duty operation
- Rugged construction for withstanding harsh use

* 60 W (PEP) above the 24 MHz band.

Simplified Radio Telephone with 150 Watt Duty Operation

SSB RADIO TELEPHONE
IC-M700PRO
(Non-FCC model)

Export Only



FEATURES

- Quick channel selection with two large knobs
- 150 W* full duty operation
- Rugged construction for withstanding harsh use
- Large, easy-to-read green LCD

* 60 W (PEP) above the 24 MHz band.



Marine Radars

12.1-inch Color Radar with Simplified ARPA, 3D View and Plot Function

COLOR TFT MARINE RADAR

MR-1220 Series

Export Only

• **MR-1220R4**

(with 2 ft, 4 kW radome scanner)

• **MR-1220T4**

(with 4 ft, 4 kW open array scanner)

• **MR-1220T6**

(with 6 ft, 6 kW open array scanner)

• **MR-1220T6L**

(with 6.5 ft, 6 kW open array scanner)



FEATURES

Collision Risk Management Functions

Simplified ARPA (Automatic Radar Plotting Aids) Function*1

When a target enters within the set watch area, the ARPA function automatically tracks the target on the radar echo. Up to 20 targets can be automatically tracked (or up to ten targets can be tracked when manually set). By selecting one of the targets, the target information such as position, course, speed, CPA, TCPA, bearing, and distance is shown on the lower side of the display.



DSC (Digital Selective Calling) Information Function*1

When connected to a DSC radio, and a DSC call is received, the received message is transferred to the MR-1220. Up to 20 DSC messages can be plotted on the radar echo.



AIS (Automatic Identification System) Overlay Function*1

When connected to an external AIS device (including Icom IC-M605, IC-M510 and MA-510TR) up to 100 AIS target icons are overlaid on the radar echo.

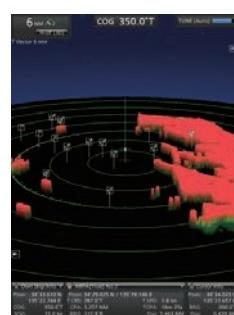


- 12.1-inch color TFT display (600 × 800 dots)
- 3D Display function
- Plot function tracks your route on the radar echo*1
- An external buzzer*2 can be connected for warning of a predicted collision
- Multi-language interface (English, Indonesian, Korean, Malay, Russian, Spanish, Thai and Vietnamese)
- True Trail function*1
- TLL (Target Latitude Longitude) function*1
- Optional UX-234 video output unit for connection with an external display
- Stabilized head up mode*1

*1 External bearing, speed, position, waypoint, variation, AIS and DSC data is (are) required, when you use these functions.

*2 User supplied.

Credits: This product includes "zlib," "libusb," "freetype," "portmap," "ncurses," and "libjpeg" open source software, and is licensed according to the open source software license. This product is based in part on the work of "Eric Young (eay@cryptsoft.com)," and "Independent JPEG Group."



3D Display function (Night mode)



Video output (UX-234 required)

Scanner Unit Selections



SC-T60L:
6.5 ft open array scanner (6 kW)
for MR-1220T6L



SC-T60:
4 ft open array scanner (6 kW)
for MR-1220T6



SC-T40:
4 ft open array scanner (4 kW)
for MR-1220T4



SC-R40:
2 ft radome scanner (4 kW)
for MR-1220R4



Marine Radars

Simplified ARPA, AIS Target Plotting and DSC Information Display

COLOR TFT MARINE RADAR

MR-1010R II



2 ft Radome Scanner



FEATURES

- 10.4-inch color TFT display (480 × 640 dots)
- 36 NM range, 4 kW radome scanner
- Intuitive user interface
- Multi-language interface
(English, Indonesian, Korean, Spanish, Thai and Vietnamese)
- AIS Overlay and Favorite AIS functions*1

- Simplified ARPA (Automatic Radar Plotting Aids) function*1
- DSC Information function*1
- True Trail function*1
- TLL (Target Latitude Longitude) function*1
- Optional UX-252 video output unit for connection with an external display

*1 External bearing, speed, position, waypoint, variation, AIS and DSC data is (are) required, when you use these functions.



Class B AIS Transponder

Receiving Both Class A and B AIS Signals

CLASS B AIS TRANSPONDER MA-510TR



FEATURES

- Navigation function guides you to the specified waypoints or AIS targets
- Wide viewing angle and high-luminance 4.3-inch color IPS TFT display
- NMEA 2000™, NMEA 0183/-HS connectivity
- Compatible with 12 V and 24 V power sources
- Man OverBoard (MOB) function
- AIS data can be output from a USB cable connector*1
- Silent mode switches off the AIS transmitter for security and privacy
- You can pick up AIS targets on the display and send Individual DSC Calls*2
- Multi-language interface
(English, French, Indonesian, Spanish and Vietnamese)
- Collision Alarm function
- Anchor Watch function
- GPS antenna supplied (WAAS, EGNOS, MSAS and GAGAN)

*1 A third party application and a connection cable are required.

*2 A compatible Icom VHF radio (IC-M605, IC-M510, IC-M424, IC-M400BB or IC-M330) is required.

GMDSS

Global Maritime Distress and Safety System

The Global Maritime Distress and Safety System (GMDSS) is the international radio safety system for ships mandated by the International Maritime Organization (IMO). The GMDSS system provides automated distress alerting and distress communication service with location information.

Class A DSC VHF Radio with Wide Viewing Angle Color TFT LCD

VHF MARINE TRANSCEIVER
GM600
(Non-FCC model)

Export Only



PS-310 DC-DC converter

Reliable Long Distance MF/HF Communication

MF/HF MARINE TRANSCEIVER
GM800
(Non-FCC model)

Export Only



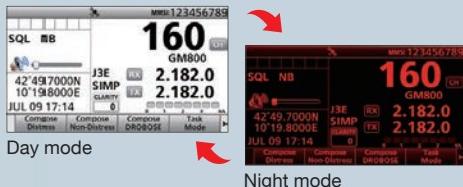


FEATURES

- Meets VHF GMDSS requirements for SOLAS ships
- Certified for European Maritime Equipment Directive (MED)
- ITU Class A DSC
- Large and high contrast 4.3-inch color TFT LCD
- Intuitive user interface for straightforward operation
- 10 W audio output power with external speaker
- Dedicated DSC watch receiver for continuous Channel 70 monitoring

• Printer connector (D-SUB 25-pin) • VDR (Voyage Data Recorder)/External speaker connector
 • IEC 61162-1 input/output • Superior sound quality with a wide frequency range and a flat frequency response
 • Optional HS-98 (#16) handset • IPX7 submersible for front panel
 • Dualwatch and Tri-watch functions • Instant access to Ch 16 and Call channel
 • Tag Scan and Favorite Channel functions • Priority Scan function
 • Unified design with GM800 (MF/HF)

Please Note: PS-310 MUST BE USED with GM600 for MED certification compliance.



FEATURES

- Meets MF/HF GMDSS requirements for SOLAS ships
- Certified for European Maritime Equipment Directive (MED)
- ITU Class A DSC
- Large and high contrast 4.3-inch color TFT LCD
- Intuitive user interface for straightforward operation
- Dedicated DSC watch receiver for continuous scanning of the six distress channels
- AT-141 automatic antenna tuner

• Output power: 150 W* PEP into 50 Ω (at radio terminal) • Built-in 24 V DC-DC converter
 • Parallel printer port • External SP connector
 • IEC 61162-1 input/output • Superior sound quality with a wide frequency range and a flat frequency response
 • HS-98 (#17) supplied handset • IPX7 submersible for controller
 • Maximum 160 programmable channels • Program scan, channel scan and channel resume scan
 • Unified design with GM600 (VHF)
 * 125 W (4.0–27.5 MHz) (at tuner-output), 85 W (1.6–3.999 MHz) (at tuner-output)

Please Note: The complete GMDSS installation for MF/HF DSC (Class A) and telephony additionally requires the optional AT-141 antenna tuner.

SURVIVAL CRAFT 2-WAY RADIO

IC-GM1600

GMDSS Portable for
Survival Craft

FEATURES

- Meets strict environmental requirements for GMDSS
- 2 W output power and long lasting battery
- BP-234 primary (non-rechargeable) lithium battery pack
- Highly visible yellow-colored body

• Instant access to Ch 16 and Call channel
 • Auto power save • 4-step battery indicator

Included Accessories

- BP-252 battery pack • BC-173 regular charger
- BC-147SA/SE* AC adapter • MB-103Y belt clip
- FA-S61V antenna (Fixed type) • Neck strap
- * Depending on the transceiver version.

Satellite PTT Radios



iridium®
connected

What is Satellite PTT?

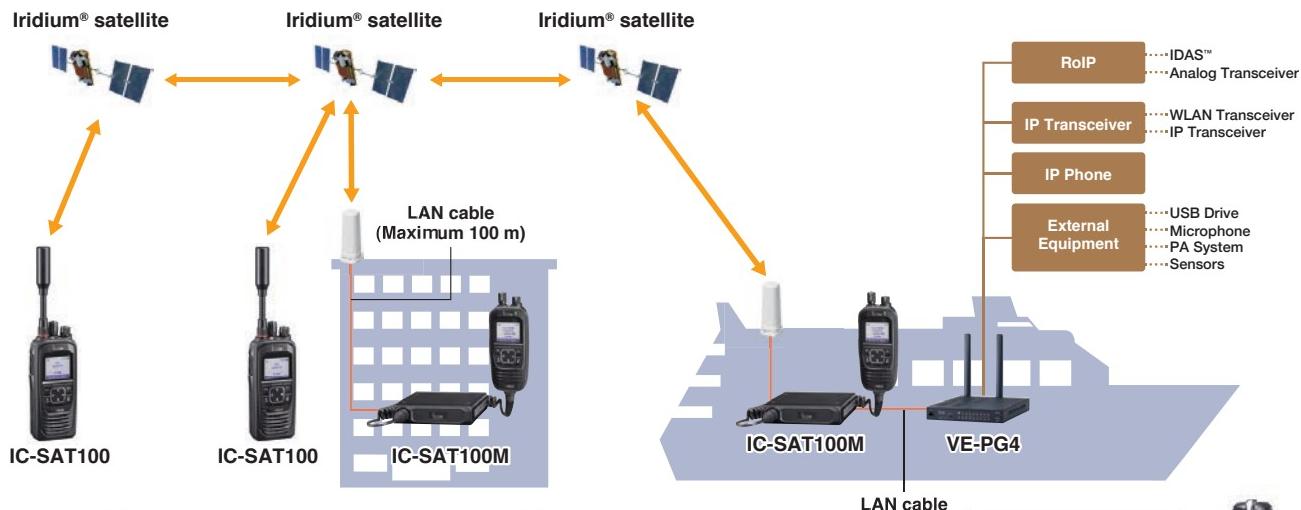
SATELLITE PTT (Push-To-Talk) is a two-way radio system that uses the Iridium® satellite network. It can be used as a communication tool in remote, isolated areas and at sea where there are no mobile phones or communications infrastructure. Even if the terrestrial network infrastructure is rendered unusable by human or natural disasters, SATELLITE PTT can provide a stable back-up, independent from other networks.

One-to-Many Communications

Total Global Coverage, including the Poles*1

Real-Time, Low-Latency Communication

Conventional Radios
and IP Phones Interconnection *2

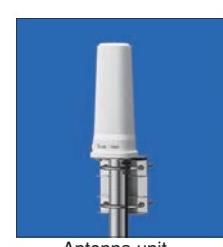


SATELLITE PTT **IC-SAT100**

- Emergency key on the top panel
- IP67 dust-tight and submersible protection
- 1500 mW of powerful audio
- 14.5 hours of long lasting battery life*3
- Short Data Message
- Voice Recording function
- Built-in Bluetooth® capability
- SMA type antenna connection
- USB charging
- AES 256-bit encryption for security

SATELLITE PTT **IC-SAT100M**

- Emergency key on the top panel
- Satellite communication in-vehicle and in-building
- LAN cable (maximum 100m) connects antenna and main unit
- Supplied multi-functional speaker-microphone
- Power supply requirement: 13.2 V/26.4 V DC
- Antenna: IP67, microphone: IP55, main unit: IP54
- 1500 mW audio output • Short Data Message
- Voice Recording function • Built-in Bluetooth® capability
- AES 256-bit encryption for security



*1 Subscription contracts are required for using the IC-SAT100/M. Depending on the country or region, carrying and/or use of the IC-SAT100/M may be prohibited.

*2 Optional VE-PG4 RoIP gateway and OPC-2412 connection cable are required for the IC-SAT100. Optional VE-PG4 RoIP gateway and a LAN cable are required for the IC-SAT100M.

*3 TX : RX : standby = 5 : 5 : 90.



Optional Accessories (for the IC-SAT100)

Docking Station for In-Vehicle Use



DOCKING STATION **BC-247**

Charger cradle for in-vehicle and in-building use. 12/24 V battery compatible.

ONE-TOUCH ANTENNA CONNECTOR **FA-S103U**

Easily replace the antenna tip to an external antenna. (SMA to BNC)

EXTERNAL ANTENNA **AH-40**

Magnet mount antenna with 1.5 m, 4.9 ft coaxial cable.

SPEAKER-MICROPHONE **HM-222H**

Use the HM-222H (or an external headset) to transmit, while the radio is attached to the BC-247.

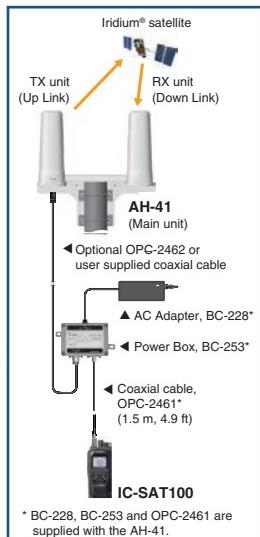
Active Antenna for In-Building Use



EXTERNAL ANTENNA **AH-41**

Maximum 169 m; 554.5 ft* coaxial cable for installing in a clear location to obtain a line-of-sight path to the satellite.

* Use optional OPC-2462 (59 m; 193.5 ft) or user supplied coaxial cable (Max. 169 m; 554.5 ft) to meet Iridium® performance requirements, and comply with FCC regulations.



For more information check the Icom website:



HEADSET **VS-3**

Bluetooth® headset



MULTI-CHARGER **BC-214N^{*1}**

Charges up to six batteries (with/without transceivers) at the same time. (BC-157S, AC adapter supplied.)



COAXIAL CABLE **OPC-2422**

Coaxial cable (5D-HFA) for the AH-40. 5 m, 16.4 ft



EXTERNAL ANTENNA **AH-38**

Pole mount passive antenna. OPC-2113 coaxial cable separately required.



COAXIAL CABLE **OPC-2113^{*2}**

Coaxial cable (5D-HFA) for the AH-38. 10 m; 32.8 ft



COAXIAL CABLE **OPC-2462**

Coaxial cable (5D-HFA) for the AH-41. 59 m; 193.5 ft

^{*1} The AD-140 charger adapters are supplied with the BC-214N, depending on the charger version.

^{*2} Use optional OPC-2113 or user supplied coaxial cable (Max. 45 m, 147.6 ft) to obtain a line-of-sight path to the satellite.

Optional Accessories (for the IC-SAT100M)



EXTERNAL SPEAKER **SP-30**



EXTERNAL SPEAKERS **SP-35 / SP-35L**

SP-35: 2 m, 6.5 ft cable
SP-35L: 6 m, 19.6 ft cable



HEADSET **VS-3**

Bluetooth® headset



AC ADAPTER **BC-157S**

12 V/7.5 A output for use with the main unit.



ANTENNA **AH-40**

Magnet mount antenna 1.5 m, 4.9 ft coaxial cable for in-vehicle use.



EXTENSION CABLE **OPC-2429**

Extension cable for use with supplied speaker-microphone 2 m, 6.5 ft



COAXIAL CABLE **OPC-2422**

Extension cable between the AH-40 and the radio. 5 m, 16.4 ft

IC-SAT100/M Short Data Message Applications for iOS™/Android™ devices



SHORT DATA MESSAGE APPLICATION **RS-SAT100**

This application lets a user send and receive a short data message from a phone through the satellite. Use Bluetooth® connection between the radio and Android™/iOS™ device.

Features

- Easy texting similar to a chat or SNS application using a large display and keyboard on the iOS™/Android™ device
- Download free on App Store or Google Play™

WLAN Radios



System Features

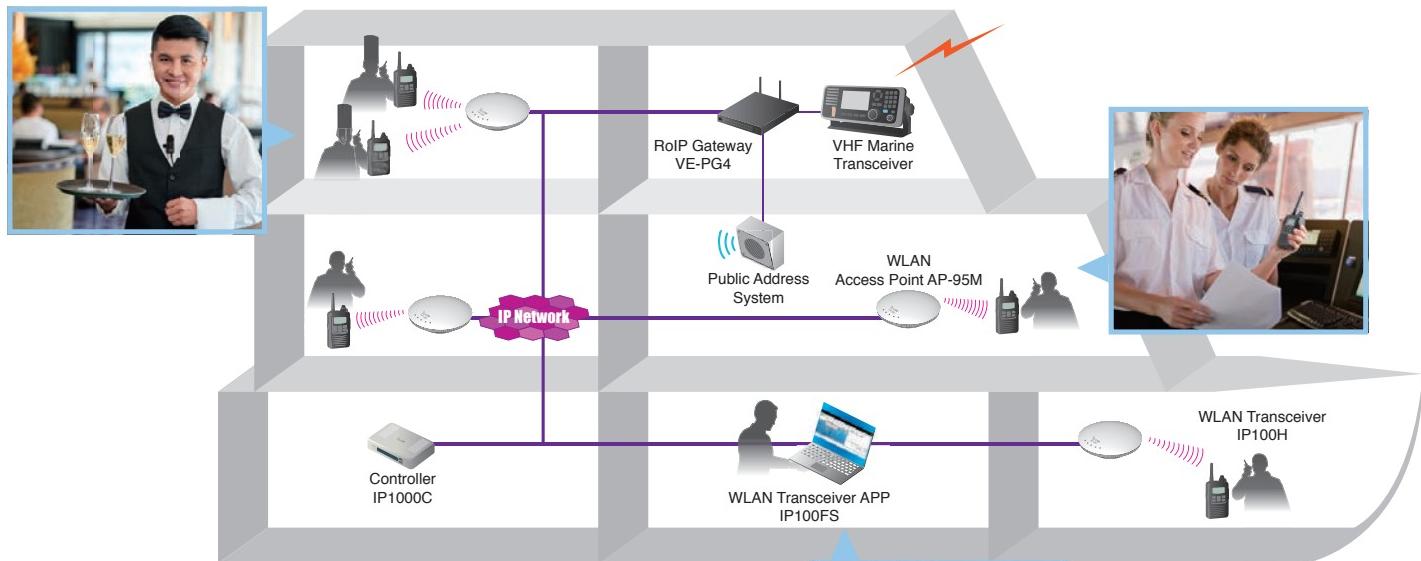
Wireless Communication System among Ship Crews

Hands-free, Full-duplex Communication with Optional Earphone-mic or Headset

IP ADVANCED RADIO SYSTEM

Individual, Group or Area Communication

Interconnection between VHF Marine Transceiver and Public Address System



WLAN TRANSCEIVER **IP100H**

- License-free communication terminal using IEEE 802.11 a/b/g/n standards
- WPA-PSK or WPA2-PSK encryption
- IPX7 submersible (1 m depth water for 30 minutes)
- Compact 58 × 95 × 26.4 mm (2.3 × 3.7 × 1.0 in) body and 205 g (7.2 oz, approximate) light weight
- Vibration Alert function for incoming calls
- Tested to the MIL-STD 810G specifications
- Emergency function



WLAN TRANSCEIVER APP **IP100FS**

(Supplied with USB flash drive for use as a USB hardware key)

- The IP100FS can communicate with IP communication terminals from a PC
- The IP100FS can obtain location information of each IP100H based on connection to access points
- Can be installed on a Windows® based tablet PC as well as laptop PC



WLAN ACCESS POINT **AP-95M**

- IEEE 802.11 a/b/g/n/ac compliant
- PoE (Power over Ethernet) capability
- Optional RS-AP3, access point management software



WLAN TRANSCEIVER CONTROLLER **IP1000C**

- The IP1000C controls all terminal configurations and voice traffic
- Capable of controlling up to 100 terminals (including IP100FS)



ROIP GATEWAY **VE-PG4**

- Versatile radio over IP gateway linking land mobile radios, WLAN transceivers, IP phone systems and external devices
- WLAN transceiver controller (Equivalent to the IP1000C function) built-in, capable of controlling up to 50 WLAN transceivers
- IDAS™ Conventional and NXDN™ Type-D multi-site trunking connection



Multi-Use Radio Service (MURS) Transceiver



Professional Grade License-Free Radio

A license free radio you can use out of the box. The IC-V10MR is a great candidate for a MIL-Spec tough backup radio for use where marine radio use may not be permitted.

Professional License Free Radio (16 channels)

IP67 Submersible and Rugged Construction

2 Year Warranty

Large Sound for Clear Audio



MULTI-USE RADIO SERVICE (MURS) TRANSCEIVER

IC-V10MR (USA market only)

- IP67 submersible and dust-tight construction • 1500 mW audio output
- Exceeds MIL-STD specified droptest (1.5 m x 6 surface)
- 3 miles (approximate, in city area) long distance communication • 16 hours* of long-lasting operating time
*5:5:90 duty ratio for transmit: receive: stand-by (with power save function)
- Compact size to fit to a palm • 2-Tone, MDC, CTCSS and DTCS capabilities
- Several Emergency calls (Lone worker/Man down) • VOX function for hands-free operation



Waterproof



Drop test



1500 mW audio output



Emergency button

SPECIFICATIONS

Usable frequencies	151.820, 151.880, 151.940, 154.570, 154.600 MHz
Number of memory channels	16 ch
Transmit output power	2 W (High), 1 W (Mid), 0.5 W (Low)
Audio output power (5% distortion, 8 Ω load)	Internal SP: 1.5 W typical External SP: 0.4 W typical
Dimensions (with BP-279)	52.2 (W) x 111.8 (H) x 24.5 (D) mm 2.1 (W) x 4.4 (H) x 1.0 (D) inches
Weight (with BP-279)	240 g, 8.5 oz

All stated specifications are subject to change without notice or obligation. Measurements made in accordance with TIA-603.

Optional Accessories for VHF Handheld Transceivers

MODEL NAME	BATTERY PACKS							BATTERY CASES	
	BP-292UL (Li-ion) 7.2 V/1910 mAh (min.) 2010 mAh (typ.)	BP-306 (Li-ion) 7.2 V/2280 mAh (min.) 2400 mAh (typ.)	BP-245H (Li-ion) 7.2 V/2100 mAh (min.) 2250 mAh (typ.)	BP-296 (Li-ion) 3.6 V/2200 mAh (min.) 2350 mAh (typ.)	BP-252 (Li-ion) 7.2 V/1000 mAh (min.) 1050 mAh (typ.)	BP-290 (Li-ion) 7.2 V/1910 mAh (min.) 2010 mAh (typ.)	BP-234 (Lithium) 9.0 V/3300 mAh (non-rechargeable)	BP-297 ^{*1} LR03 (AAA) x 3 cells	BP-291 LR6 (AA) x 5 cells
IC-M94D		✓							
IC-M73			✓						
IC-M37				✓				✓	
IC-M25 ^{*2}									
IC-M85							✓		✓
IC-M85UL	✓								
IC-GM1600						(On-board use only)		(For survival craft)	

^{*1} The IC-M37 floats when used with most common brand AAA batteries. Battery weight varies by manufacturer.

Please check your IC-M37 for buoyancy in a shallow area first when using AAA batteries.

^{*2} As the Lithium-ion battery pack (3.7 V 1500 mAh) is built into the radio, the user cannot change the battery pack.

MODEL NAME	DESKTOP CHARGERS								USB CHARGER
	BC-251 Desktop charger	BC-210 Desktop charger	BC-235 Desktop charger	BC-173 Regular charger	BC-219N Rapid charger	BC-225 Intelligent rapid charger	BC-226 ^{*3} Connectable type. Connects up to six BC-226 units.	BC-227 Rapid charger	BC-217S ^{*5} 5 V/1 A
IC-M94D	✓								
IC-M73		✓							
IC-M37			✓						✓ (Use with BC-235)
IC-M25									✓
IC-M85					✓	✓	✓	✓	
IC-M85UL							✓ ^{*4}	✓ ^{*4}	
IC-GM1600				(for BP-252)					

^{*3} An AC adapter should be purchased separately. BC-123S (Straight plug version) for single unit or BC-228 for multiple connectors.

^{*4} The battery charger must not be used in an explosive atmosphere.

MODEL NAME	MULTI-CHARGERS			AC ADAPTERS					CIGARETTE LIGHTER CABLE
	BC-214N Rapid charger	BC-197 Rapid charger	BC-238 ^{*6} Rapid charger	BC-242 12 V/1 A	BC-123S ^{*5} 12 V/1 A	BC-147S ^{*5} 12 V/250 mA	BC-157S 12 V/7.5 A	BC-228 15 V/4 A	CP-25H
IC-M94D				(Use with BC-251)	(Use with BC-251)				(Use with BC-251)
IC-M73		(Use #31-#33, AD-129 included)			(Use with BC-210)				(Use with BC-210)
IC-M37			(AD-138 included)						
IC-M25									
IC-M85	✓ (Use #61-#63, AD-132N included)				✓(Use with BC-219N, BC-225 or BC-227)		(Use with BC-214N)	(Use with BC-226)	
IC-M85UL					(Use with BC-227)			(Use with BC-226)	(Use with BC-227)
IC-GM1600						✓(Use with BC-173, On-board use only)			

^{*5} BC-123/BC-147/BC-217SA for USA plug, SE for Europe plug, SV for Australia plug.

^{*6} DC power cable is supplied with the BC-238, depending on the transceiver version.

: Applicable

: Not applicable

Some options may not be available in some countries. Please ask your dealer for details.

Optional Accessories for VHF Handheld Transceivers

MODEL NAME	CIGARETTE LIGHTER CABLES	DC POWER CABLES		READER SOFTWARE	SPEAKER-MICROPHONES				
	CP-23L	OPC-515L	OPC-656	RS-BC225 Intelligent charger software for Windows® PC	HM-184UL Submersible	HM-228 Submersible	HM-165 Submersible	HM-202 Submersible	HM-167 Submersible
IC-M94D						✓	✓		
IC-M73			✓ (Use with BC-210)	✓ (Use with BC-197)				✓	✓
IC-M37									
IC-M25									
IC-M85	✓ (Use with BC-219N, or BC-227)	✓ (Use with BC-219N, BC-225 or BC-227)	✓ (Use with BC-214N)	✓ (Use with BC-225)					
IC-M85UL	✓ (Use with BC-227)	✓ (Use with BC-227)			✓				
IC-GM1600									

MODEL NAME	SPEAKER-MICROPHONES			TIE-CLIP MICROPHONE	HEADSETS			PTT SWITCH CABLE	EARPHONES
	HM-213 Submersible	HM-222H Submersible	HM-236 Submersible	HM-163MC	HS-94 Earhook type with boom microphone	HS-95 Behind-the-head type	HS-97 Throat microphone type	VS-5MC Manual PTT/VOX operation	EH-15B 2.5 mm plug
IC-M94D									
IC-M73									
IC-M37	✓								
IC-M25	✓								
IC-M85		✓	✓	✓	(Use with VS-5MC)	(Use with VS-5MC)	(Use with VS-5MC)	✓	(Use with HM-163MC)
IC-M85UL									
IC-GM1600									

MODEL NAME	EARPHONES					ACC ADAPTERS		BELT CLIPS	
	SP-26 Tube earphone	SP-27 Tube earphone	SP-28	SP-29	SP-40	AD-118 6-Pin Hirose plug adapter	AD-135 3.5 mm jack earphone adapter	MB-86 MB-136	MB-103/103Y MB-133 MBB-3
IC-M94D									
IC-M73									
IC-M37								✓ (Use MB-86)	✓ (Use MB-133)
IC-M25									
IC-M85	✓ (Use with HM-163MC)	✓ (Use with HM-222H or AD-135)	✓ (Use with HM-163MC)	✓ (Use with HM-222H or AD-135)	✓ (Use with HM-222H or AD-135)	✓	✓	✓ (Use MB-136)	✓ (Use MBB-3)
IC-M85UL								✓ (Use MB-136)	✓ (Use MBB-3)
IC-GM1600								✓ (Use MB-86)	✓ (Use MB-103Y)

MODEL NAME	BELT HANGERS			CARRYING CASES			ANTENNAS	
	MB-96N	MB-96F	MB-96FL Long type	LC-187 Charging is possible while the case is attached.	LC-188	LC-191 Charging is possible while the case is attached.	FA-S59V FA-S64V FA-SC58V FA-SC59V	FA-SC59V FA-S59V or FA-S64V FA-SC59V FA-SC59V FA-SC58V FA-SC58V Fixed type
IC-M94D		✓	✓				FA-SC59V	
IC-M73	✓	✓	✓				FA-S59V or FA-S64V	
IC-M37							FA-SC59V	
IC-M25							FA-SC59V	
IC-M85	✓	✓	✓	✓	✓		FA-SC58V	
IC-M85UL	✓	✓	✓	✓		✓	FA-SC58V	
IC-GM1600	✓	✓	✓	✓			Fixed type	

The IC-M85UL version should only be used with the specified Intrinsically Safe approved options.
Some options may not be available in some countries. Please ask your dealer for details.

Optional Accessories for VHF Fixed Mount Transceivers

MODEL NAME	HAND MICROPHONES				COMMAND HEAD™ RC-M600 HM-205RB and 10 m; 32.8 ft cable supplied	COMMANDMIC™ HM-195B/SW 6.1 m; 20 ft cable supplied	HANDSET HS-98 (#16)	HORN SPEAKER SP-37
	HM-205B/RB/SW Speaker microphone	HM-235B/W	HM-237B	HM-214V				
IC-M605	(HM-205RB)				✓	(Use with OPC-2384)	(Use with OPC-2384)	✓
IC-M510	(Use with HM-205RB)					✓	✓	✓
IC-M424G	(Use with HM-205B/SW)					✓	✓	✓
IC-M400BB						✓	✓	✓
IC-M330G		(Same as supplied)						✓
IC-M330		(Same as supplied)						✓
IC-M220			(Same as supplied)					✓
GM600				(Same as supplied)				✓

MODEL NAME	WIRELESS INTERFACE BOX	FRONT PANEL COVER	CONVERSION CABLE	EXTENSION CABLES			DC-DC CONVERTER	FLUSH MOUNT KITS	VOICE SCRAMBLER
	CT-M500 For NMEA 2000 and hailer/RX speaker	MBZ-1	OPC-2384 12-pin to 8-pin Required for IC-M605 and COMMANDMIC connection	OPC-2377 10 m; 32.8 ft cable for use with COMMAND HEAD	OPC-1541 6.1 m; 20 ft cable for use with COMMANDMIC	OPC-1000 6.1 m; 20 ft cable for use with rear microphone connection	PS-310 #01 24 V input #02 12 V input	MB-75 MB-132 MBF-5 MBF-7	UT-112/A Total of 32 voice scramble codes available
IC-M605			(Use with HM-195)	(Use with RC-M600)	(Use with HM-195, HM-205RB)	(Use with HM-205RB)		(Use MB-75 or MB-132)	✓
IC-M510	✓	✓			(Use with HM-195)	(Use with HM-205RB)		(Use MBF-7)	✓
IC-M424G					(Use with HM-195)			(Use MB-132)	
IC-M400BB					(Use with HM-195)			(Use MBF-5)	
IC-M330G								(Use MBF-5)	
IC-M330								(Use MBF-5)	
IC-M220								(Use MBF-5)	
GM600							✓		

MODEL NAME	SOFTWARE	AIS RECEIVER UNIT	GNSS ANTENNA
	RS-M500* ¹ For Android™ / iOS™ device	UX-251	UX-241
IC-M605		✓* ² (Installed, depending on version)	✓ (Same as supplied)
IC-M510	✓		✓
IC-M424G			
IC-M400BB			
IC-M330G			
IC-M330			
IC-M220			
GM600			

*1 Free download app for Android™ / iOS™. Download on Google Play™/App Store.
*2 See configuration chart (right).

IC-M605 Configuration Variations

	AIS Receiver
IC-M605 AIS	Integrated
IC-M605	Not included*

* Optional UX-251 is required for AIS receiver.

IC-M510 Configuration Variations

	AIS Receiver
IC-M510 AIS	Integrated
IC-M510	Not included

Optional Accessories for MF/HF Transceivers

MODEL NAME	HAND MICROPHONES	HANDSET	EXTERNAL SPEAKERS	FLUSH MOUNT KIT	MOUNTING BRACKET	FOLDED DIPOLE ANTENNA		
GM800	✓		✓		✓		✓	
IC-M803	✓			✓		✓	✓	
IC-M710		✓					✓	
IC-M700PRO		✓					✓	

MODEL NAME	ANTENNA MATCHERS		ANTENNA TUNERS			SHIELDED CONTROL CABLES		FILTER
GM800						✓	(Use with AT-141)	
IC-M803	✓	✓		✓			(Use with AT-140)	
IC-M710	✓	✓	✓	✓			(Use with AT-130)	✓
IC-M700PRO	✓	✓	✓	✓			(Use with AT-130)	✓

Optional Accessories for AIS Transponder

MODEL NAME	FLUSH MOUNT KITS	
MA-510TR	✓	✓

Optional Accessories for Marine Radars

MODEL NAME	VIDEO OUTPUT UNITS	SYSTEM CABLES	RADOME SCANNER	OPEN ARRAY SCANNERS
MR-1220	✓	✓	✓	✓
MR-1010RII		✓	✓	✓

✓ : Applicable [] : Not applicable

Some options may not be available in some countries. Please ask your dealer for details.

Specifications for VHF Handheld Transceivers

		IC-M94D	IC-M73	IC-M37	IC-M25
Frequency range (Unit: MHz)		TX: 156.025–157.425 RX: 156.050–163.275 CH70: 156.525 AIS: 162.025	TX: 156.025–157.425 RX: 156.050–163.275	TX: 156.025–157.425 RX: 156.050–163.275	TX: 156.025–157.425 RX: 156.050–163.275
Dimensions (W × H × D; Projections not included)		60.9 × 145.8 × 43.8 mm; 2.4 × 5.7 × 1.7 in	52.5 × 125 × 30 mm; 2.1 × 4.9 × 1.2 in	59.7 × 140.5 × 38.7 mm, 2.4 × 5.5 × 1.5 in	56.6 × 134.2 × 30.5 mm; 2.2 × 5.3 × 1.2 in
Weight (approximate)		357 g; 12.6 oz (With BP-306, MB-133 and antenna)	320 g; 11.3 oz (With BP-245H, MB-103 and FA-S59V)	293 g, 10.3 oz (with BP-296, antenna and belt clip)	220 g; 7.8 oz (With MB-133 and FA-SC59V)
Current drain	Transmit (High)	1.5 A	1.5 A typical	2.75 A	2.3 A (at 3.7 V DC)
	Max. audio	700 mA typical (Internal SP) 350 mA typical (External SP)	450 mA typical (Internal SP) 250 mA typical (External SP)	400 mA (Internal SP) 200 mA (External SP)	200 mA typical (Internal SP) 300 mA typical (External SP)
Sensitivity (at 12 dB SINAD)		0.25 µV typical	0.22 µV typical	0.25 µV typical	0.25 µV typical
Intermodulation rejection		70 dB typical	70 dB typical	70 dB typical	70 dB typical
Audio output power (10% distortion)		1500 mW typical (Internal SP) 350 mW typical (External SP)	700 mW typical (Internal SP) 350 mW typical (External SP)	700 mW typical (Internal SP) 300 mW typical (External SP)	550 mW typical (Internal SP) 300 mW typical (External SP)
RF output power		6/1 W	6/3/1 W	6/1 W	5/1 W
Operating time approximate*1		10 hours (with BP-306)	17 hours (PLUS version) 20 hours (Basic version) (with BP-245H)	12 hours (with BP-296)	11 hours (with built-in battery)
Submersible protection		IPX7 (1 m depth/30 min)	IPX8 (1.5 m depth/30 min)	IP57 (1 m depth/30 min)	IPX7 (1 m depth/30 min)
AIS receiver		✓	—	—	—
Integrated GNSS receiver		✓	—	—	—
Float'n Flash		✓	—	✓	✓

		IC-M85	IC-M85UL	IC-GM1600
Frequency range (Unit: MHz)		TX: 156.025–157.425 RX: 156.050–163.275 LMR TX/RX: 136–174	TX: 156.025–157.425 RX: 156.050–163.275 LMR: TX/RX 136–174	TX/RX: 156.300–156.875
Dimensions (W × H × D; Projections not included)		56 × 92 × 29 mm; 2.2 × 3.6 × 1.1 in	56 × 92 × 34.1 mm; 2.2 × 3.6 × 1.3 in	65 × 145 × 44 mm; 2.6 × 5.7 × 1.7 in
Weight (approximate)		246 g; 8.7 oz (with BP-290, FA-SC58V and MBB-3)	285 g; 9.9 oz (With BP-292UL, FA-SC58V, MBB-3)	385 g; 13.6 oz (With BP-234)
Current drain	Transmit (High)	1.5 A (at 5 W) 0.9 A (at 2 W)*2	1.5 A (at 5 W) 0.9 A (at 2 W)*2	1.0 A (at 2 W) 0.7 A (at 1 W)
	Max. audio	450 mA	450 mA	200 mA
Sensitivity (at 12 dB SINAD)		0.25 µV typical	0.25 µV typical	0.25 µV typical (USA version)
Intermodulation rejection		70 dB typical	70 dB typical	70 dB (USA version), 68 dB (GEN version)
Audio output power (10% distortion)		700 mW typical (Internal SP) 700 mW typical (External SP)	700 mW typical (Internal SP) 700 mW (External SP)	350 mW typical
RF output power		5/3/1 W 2/1 W*2	5/3/1 W 2/1 W*2	2/1 W
Operating time approximate*1		14 hours (with BP-290)	11 hours (with BP-292UL)	Specified as per IMO A.809 (19)
Submersible protection		IP67 (1 m depth/30 min)	IP67 (1 m depth/30 min)	Specified as per IMO A.809 (19)
AIS receiver		—	—	—
Integrated GNSS receiver		—	—	—
Float'n Flash		—	—	—

Measurements made in accordance with TIA/EIA603 for IC-M94D , M73, M37, M25, M85 and M85UL. TIA/EIA603 and FCC Part 80.271 for IC-GM1600.

*1 Typical operation, Tx:Rx:Stand-by=5:5:90 *2 Land mobile channels for USA Version.

Specifications for VHF Fixed Mount Transceivers

		IC-M605	IC-M510	IC-M424G	IC-M400BB	IC-M330G	IC-M330	IC-M220	GM600
Frequency range (Unit: MHz)		TX: 156.025–161.600 RX: 156.050–163.275 CH70: 156.525 AIS1,2*: 161.975, 162.025	TX: 156.025–157.425 RX: 156.050–163.275 CH70: 156.525 AIS1,2*: 161.975, 162.025	TX: 156.025–157.425 RX: 156.050–163.275 CH70: 156.525	TX: 156.025–157.425 RX: 156.050–163.275 CH70: 156.525	TX: 156.025–161.600 RX: 156.050–163.275 CH70: 156.525	TX: 156.025–157.425 RX: 156.050–163.275 CH70: 156.525	TX: 156.025–157.425 RX: 156.050–163.275 CH70: 156.525	TX: 156.025–161.600 RX: 156.050–162.000 CH70: 156.525
Power supply requirement		13.8 V DC ±15%	13.8 V DC ±15%	13.8 V DC ±15%	13.8 V DC ±15%	13.8 V DC ±15%	13.8 V DC ±15%	13.8 V DC ±15%	24 VDC (21.6–31.2 VDC)*3
Dimensions (W × H × D; Projections not included)		274 × 114 × 121.5 mm; 10.8 × 4.5 × 4.8 in	175.0 × 110.0 × 53.6 mm; 6.9 × 4.3 × 2.1 in	180 × 82 × 119.9 mm; 7.1 × 3.2 × 4.7 in	216 × 79 × 125 mm; 8.5 × 3.1 × 4.9 in	156.5 × 66.5 × 110.1 mm; 6.2 × 2.6 × 4.3 in	156.5 × 66.5 × 110.1 mm; 6.2 × 2.6 × 4.3 in	724 × 114 × 121.5 mm; 10.8 × 4.5 × 4.8 in	724 × 114 × 121.5 mm; 10.8 × 4.5 × 4.8 in
Weight (approximate)		1.51 kg; 3.3 lb	730 g; 1.6 lb	1.2 kg 2.6 lb	Main unit 830 g; 1.8 lb HM-195 400 g; 14.1 oz	730 g; 1.6 lb	700 g; 1.5 lb (With HM-237B)	1.6 kg; 3.5 lb	
Current drain	Transmit (High)	6 A	5 A	5.5 A	5.5 A	5 A	5 A	5 A	3.3 A*3
	Max. audio	5 A typ. (Ext SP, RX hailer ON) 8 A Max. (Ext SP, RX hailer ON, HM-195 x 3)	3.3 A	5 A typ. (Ext SP, RX SP ON) 1.5 A (Internal SP)	3.5 A	1 A	1.2 A	2.0 A*3	
Sensitivity (at 12 dB SINAD)		0.22 µV typical	0.32 µV typical	0.22 µV typical	0.22 µV typical	0.22 µV typical	0.22 µV typical	-7 dBµ emf typ. (20 dB SINAD)	
Intermodulation rejection		More than 80 dB	More than 75 dB	More than 70 dB	More than 70 dB	More than 70 dB	More than 63 dB	More than 75 dB (Main)	
Audio output power (10% distortion/4Ω load)		15 W (External SP)	15 W (External SP)	10 W typ. (External SP)	10 W (External SP) 2 W (HM-195 series)	4.5 W typical (External SP)	4.5 W typical	10 W (External SP)	
RF output power		25/1 W	25/1 W	25/1 W	25/1 W	25/1 W	25/1 W	25/1 W	
NMEA interface		NMEA 2000, NMEA 0183/0183-HS × 2	NMEA 2000*, NMEA 0183/0183-HS	NMEA 0183	IEC 61162-1				
AIS receiver		Built-in*1	Built-in*1	—	—	—	—	—	
Integrated GNSS receiver		Yes	Yes	Yes	—	Yes	—	—	

Measurements made in accordance with TIA/EIA 603 for IC-M605, M510, M424G, M400BB, M330G, M330, M220 and EN301 925 for GM600.

*1 Only for the AIS version. *2 CT-M500 required. *3 With PS-310 (#01)

Specifications for MF/HF Fixed Mount Transceivers

		IC-M803	IC-M710	IC-M700PRO	GM800
Frequency range (Unit: MHz)		TX: 1.6–27.5000 RX: 0.5–29.9999 DSC : 2.1875, 4.2075, 6.3120, 8.4145, 12.5770, 16.8045	TX: 1.6–27.5000 (ITU channels) RX: 0.5–29.9999	TX: 1.6–27.5000 (ITU channels) RX: 0.5–29.9999	TX: 1.6–27.5000 (ITU channels) RX: 0.5–29.9999 (continuously) DSC: 2.1875, 4.2075, 6.3120, 8.4145, 12.5770, 16.8045
Type of emission	TX/RX	J3E (USB, LSB), J2B (AFSK), F1B (FSK), A1A (CW), H3E ¹ (AM)	J3E (USB/LSB), H3E (AM), J2B (AFSK), F1B (FSK), R3E, A1A (CW) ²	J3E (USB/LSB), H3E (AM), J2B (AFSK), F1B (FSK), R3E, A1A (CW) ²	J3E (USB/LSB ¹), H3E ¹ (AM), J2B ¹ (AFSK), F1B (FSK), A1A ¹ (CW)
	DSC	J2B			F1B
Power supply requirement		13.6 V DC ±15%	13.6 V DC ±15%	13.6 V DC ±15%	21.6–31.2 V DC (floating ground)
Dimensions (W×H×D; projections not included)	Main unit	240 × 94 × 238.4 mm, 9.4 × 3.7 × 9.4 in	291.4 × 116.4 × 315 mm; 11.5 × 4.6 × 12.4 in	291.4 × 116.4 × 315 mm; 11.5 × 4.6 × 12.4 in	367 × 95 × 269 mm; 14.4 × 3.7 × 10.6 in
	Controller	274 × 114 × 86 mm, 10.8 × 4.5 × 3.4 in			274 × 114 × 86 mm; 10.8 × 4.5 × 3.4 in
Weight (approximate)	Main unit	4.41 kg, 10.4 lb	7.8 kg; 17.2 lb	7.8 kg; 17.2 lb	8.6 kg; 19.0 lb
	Controller	760 g, 1.7 lb			760 g; 1.7 lb
Current drain	Transmit (Max. power)	30 A	30 A	30 A	Less than 20 A (at 1.1 and 1.7 kHz two tones)
	Receive (Max. audio)	Less than 3.0 A	2.5 A	2.5 A	Less than 3.0 A
Sensitivity	J3E, A1A	30 dB _P V emf ³ , 16 dB _P V ⁵ (0.5–1.5999 MHz) 13 dB _P V emf ³ , -1 dB _P V ⁵ (1.6–1.7999 MHz) 8 dB _P V emf ³ , -6 dB _P V ⁵ (1.8–29.9999 MHz)	16 dB _P (0.5–1.5999 MHz) ⁶ 0 dB _P (1.6–1.7999 MHz) ⁶ -6 dB _P (1.8–29.9999 MHz) ⁶	16 dB _P (0.5–1.5999 MHz) ⁶ 0 dB _P (1.6–1.7999 MHz) ⁶ -9 dB _P typical (1.8–29.9999 MHz) ⁶	16 dB _P V emf (1.6–3.999 MHz) ³ 11 dB _P V emf (4.0–29.999 MHz) ³
	J2B, F1B	4 dB _P V emf ³ , -10 dB _P V ⁵ (1.6–1.7999 MHz) -1 dB _P V emf ³ , -15 dB _P V ⁵ (1.8–29.9999 MHz)	-	-	3 dB _P V emf (1.6–2.099 MHz) ⁴ 0 dB _P V emf (2.1–27.5 MHz) ⁴
	J2B, R3E	-	16 dB _P (0.5–1.5999 MHz) ⁶ 0 dB _P (1.6–1.7999 MHz) ⁶ -6 dB _P (1.8–29.9999 MHz) ⁶	16 dB _P (0.5–1.5999 MHz) ⁶ 0 dB _P (1.6–1.7999 MHz) ⁶ -9 dB _P typical (1.8–29.9999 MHz) ⁶	-
	H3E	44 dB _P V emf ³ , 30 dB _P V ⁵ (0.5–1.5999 MHz) 30 dB _P V emf ³ , 16 dB _P V ⁵ (1.6–1.7999 MHz) 24 dB _P V emf ³ , 10 dB _P V ⁵ (1.8–3.9999 MHz)	30 dB _P (0.5–1.5999 MHz) ⁵ 16 dB _P (1.6–1.7999 MHz) ⁵ 10 dB _P (1.8–29.9999 MHz) ⁵	30 dB _P (0.5–1.5999 MHz) ⁵ 16 dB _P (1.6–1.7999 MHz) ⁵ 7 dB _P typical (1.8–29.9999 MHz) ⁵	30 dB _P V emf (1.6–3.999 MHz) ³ 0 dB _P V emf ⁴
	DSC (J2B)	-6 dB _P V emf ⁶	-	-	
RF output power		150, 100, 60, 20 W PEP (selectable)	150/60/20 W PEP (1.6–23.999 MHz) 60/20 W PEP (24.0–27.500 MHz)	150/60/20 W PEP (1.6–23.999 MHz) 60/20 W PEP (24.0–27.500 MHz)	150 W PEP into 50 Ω (at radio terminal) 85 W PEP (1.6–3.999 MHz) (at tuner-output) 125 W PEP (4.0–27.5 MHz) (at tuner-output)

*1 Receive only. *2 Available modes may differ depending on version. *3 20 dB SINAD *4 1% error rate *5 10 dB S/N *6 12 dB SINAD

Specifications for Satellite PTT Radios

HANDHELD TRANSCEIVER

IC-SAT100	
Dimensions (W × H × D; projections are not included)	57.8 × 135 × 32.8 mm, 2.3 × 5.3 × 1.3 in
Weight (approximate)	360g, 12.7 oz (with BP-300 and antenna)
Operational temperature range	-30°C to +60°C, -22 °F to 140 °F
Audio output power (5% dist.)	Internal speaker 1500 mW typical (8 Ω load) External speaker 1000 mW typical (8 Ω load)
Battery life (approximate)	14.5 hours (TX : RX : standby = 5 : 5 : 90)
Submersible protection	IP67
Talkgroup	15 groups (Maximum)
Antenna connector	SMA

MOBILE TRANSCEIVER

IC-SAT100M	
Dimensions (W × H × D; projections are not included)	76.8 × 200 × 76.8 mm, 3 × 7.9 × 3 in
Antenna	125 × 29 × 156.5 mm, 4.9 × 1.1 × 6.2 in
Main Unit	59.5 × 134.6 × 30.1 mm, 2.3 × 5.3 × 1.2 in
Microphone	
Weight (approximate)	1.2 kg, 2.6 lb (Main unit with microphone)
Operational temperature range	-30°C to +60°C, -22 °F to 140 °F
Audio output power (5% dist.)	Internal speaker 1500 mW typical (8 Ω load) External speaker 4 W typical (4 Ω load)
Power supply voltage	13.2 V / 26.4 V DC
Submersible protection	IP67 (Antenna), IP55 (Mic), IP54 (Main unit)
Talkgroup	15 groups (Maximum)
Antenna connector	SMA
Power over Ethernet (PoE) Capability	IEEE802.3at compatible Powered Device: Max 25 W, Power Source Equipment: 30 W

Specifications for AIS Transponder

AIS TRANSPONDER

MA-510TR	
Frequency range (Unit: MHz)	161.500–162.025 (AIS), 156.525 (DSC)
Type of emission	16K0GXW (GMSK) (AIS), 16K0G2B (DSC)
Power supply requirement	12 V or 24 V DC nominal (9.6–31.2 V)
Dimensions (W × H × D; Projections not included)	166.2 × 110.2 × 92.5 mm, 6.5 × 4.3 × 3.6 in
Weight (approximate)	700 g, 1.5 lb
Current drain	Transmit 1.5 A Receive 0.7 A
Sensitivity	Less than -110 dBm
Intermodulation rejection	More than -36 dBm (AIS), More than -39 dBm (DSC)
RF output power	2 W

Measurements made in accordance with IEC62287-1.

Specifications for Marine Radars

DISPLAY UNIT	MR-1220				MR-1010RII
	MR-1220R4	MR-1220T4	MR-1220T6	MR-1220T6L	
Display	12.1-inch color TFT LCD				10.4-inch color TFT LCD
Resolution (H × V)	600 × 800 dots				480 × 640 dots
Minimum range	25 m; 82 ft (at 1/8 NM range)				25 m; 82 ft (at 1/8 NM range)
Maximum range	36 NM	48 NM	72 NM	72 NM	36 NM
Power supply requirement	12/24 V DC				12/24 V DC
Dimensions (W × H × D; projections not included)	301 × 323.5 × 119.2 mm; 11.9 × 12.7 × 4.7 in				301 × 323.5 × 119.2 mm; 11.8 × 12.7 × 4.7 in
Weight (approx.)	4.8 kg; 10.6 lb				4.3 kg; 9.5 lb
Usable temperature range	−15 °C to +55 °C; +5 °F to +131 °F				−15 °C to +55 °C; +5°F to +131°F
Power consumption (approx.)	60 W	70 W	80 W	90 W	55 W
Available scanner unit	2 ft (60 cm) radome	4 ft (120 cm) open array	4 ft (120 cm) open array	6.5 ft (200 cm) open array	2 ft (60 cm) radome

SCANNER UNIT	SC-R40 (MR-1220R4)	SC-T40 (MR-1220T4)	SC-T60 (MR-1220T6)	SC-T60L (MR-1220T6L)	MR-1010RII
Type	2 ft (60cm) radome	4 ft (120 cm) open array	4 ft (120 cm) open array	6.5 ft (200 cm) open array	2 ft (60 cm) radome
Peak output power	4 kW	4 kW	6 kW	4 kW	4 kW
Rotation speed	24, 36 rpm typical	24, 36 rpm typical	22, 24, 36 rpm typical	22, 24, 36 rpm typical	24, 36 rpm typical
Beamwidth	Horizontal 4° typical	Vertical 2° typical	2° typical	1.2° typical	4° typical
Sidelobe	22° typical	23° typical	23° typical	23° typical	22° typical
Transmission frequency	9410 MHz ±30 MHz	9410 MHz ±30 MHz	9410 MHz ±30 MHz	9410 MHz ±30 MHz	9410 MHz ±30 MHz
Dimensions (W × H × D; projections not included)	640 × 256 × 640 mm; 25.2 × 10.1 × 25.2 in	1217 (dia.) × 395 (H) mm; 47.9 (dia.) × 15.6 (H) in	1217 (dia.) × 395 (H) mm; 47.9 (dia.) × 15.6 (H) in	1995 (dia.) × 395 (H) mm; 78.5 (dia.) × 15.6 (H) in	640 × 256 × 640 mm; 25.2 × 10.1 × 25.2 in
Weight (approx.)	8 kg; 17.6 lb	18 kg; 39.7 lb	18 kg; 39.7 lb	20 kg; 44.1 lb	8 kg; 17.5 lb
Usable temperature range	−25 °C to +70 °C; −13 °F to +158 °F	−25 °C to +70 °C; −13 °F to +158 °F	−25 °C to +70 °C; −13 °F to +158 °F	−25 °C to +70 °C; −13 °F to +158 °F	−25 °C to +70 °C; −13 °F to +158 °F
Connection cable	15 m; 49.2 ft (OPC-2341)	20 m; 65.6 ft (OPC-2342)	20 m; 65.6 ft (OPC-2342)	20 m; 65.6 ft (OPC-2342)	15 m; 49.2 ft (OPC-2341)

Experience in Video

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IC-M510 promotion video



IC-M94D promotion video



Function movie example (Float'n Flash function)

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